

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES SECTION**

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

BAYOU D'ARBONNE LAKE

LAKE HISTORY & MANAGEMENT ISSUES

Chronology

JULY 2006 – Prepared by
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TABLE OF CONTENTS

LAKE HISTORY	5
GENERAL INFORMATION	5
<i>Date Lake formed</i>	<i>5</i>
<i>Impoundment</i>	<i>5</i>
<i>Size (surface area)</i>	<i>5</i>
<i>Watershed</i>	<i>5</i>
<i>Pool Stage</i>	<i>5</i>
<i>Parish</i>	<i>5</i>
<i>Border Waters</i>	<i>5</i>
<i>Spillway width</i>	<i>5</i>
<i>Drawdown description</i>	<i>5</i>
<i>Who controls</i>	<i>6</i>
<i>Drawdown Schedule</i>	<i>6</i>
LAKE AUTHORITY	6
<i>Association</i>	<i>6</i>
<i>Authorization</i>	<i>7</i>
MAPS	7
<i>Access</i>	<i>7</i>
<i>Boat Docks</i>	<i>8</i>
<i>Piers</i>	<i>8</i>
<i>State/Federal facilities</i>	<i>8</i>
<i>Artificial Reefs</i>	<i>8</i>
SHORELINE DEVELOPMENT	9
<i>Commercial</i>	<i>9</i>
<i>Shoreline development by landowners</i>	<i>9</i>
PHYSICAL DESCRIPTION OF LAKE	9
<i>Shoreline length</i>	<i>9</i>
<i>Timber type</i>	<i>9</i>
<i>Average depth</i>	<i>9</i>
<i>Maximum depth</i>	<i>9</i>
<i>Natural seasonal water fluctuation</i>	<i>9</i>
EVENTS / PROBLEMS	9
<i>Drawdowns</i>	<i>9</i>
<i>Flooding</i>	<i>10</i>
<i>Water Supply</i>	<i>11</i>
MANAGEMENT ISSUES	12
AQUATIC VEGETATION	12
<i>Type Maps</i>	<i>12</i>
<i>Vegetation Biomass Sampling</i>	<i>12</i>
HISTORY OF REGULATIONS	13
<i>Recreational</i>	<i>13</i>
<i>Commercial</i>	<i>15</i>
DRAWDOWN HISTORY	16
<i>Estimated % exposed</i>	<i>17</i>
<i>Who operated structure</i>	<i>18</i>
<i>Fish Kills</i>	<i>18</i>
FISH KILLS / DISEASE HISTORY	18
CONTAMINANTS / POLLUTION	18
<i>Water quality</i>	<i>18</i>
<i>Water level</i>	<i>18</i>
BIOLOGICAL	18
<i>Fish Sampling History</i>	<i>18</i>
<i>Largemouth Bass and Crappie Stock Assessments</i>	<i>21</i>
<i>Lake records</i>	<i>21</i>
<i>Stocking History</i>	<i>21</i>
<i>Genetics</i>	<i>23</i>

<i>Species profile</i>	23
RECREATIONAL ANGLER CREEL SURVEYS	25
WATER USE	26
<i>Hunting</i>	26
<i>Skiing</i>	26
<i>Swimming</i>	26
<i>Irrigation</i>	26
APPENDIX I	27
APPENDIX II	28
APPENDIX III	29
APPENDIX V	32
APPENDIX VI	33
APPENDIX VII	36

LAKE HISTORY

GENERAL INFORMATION

Date Lake formed

Impoundment of Bayou D'Arbonne, Corney Bayou, and Middle Fork Bayou in November, 1963.

Impoundment

Pool stage achieved January, 1964. Ownership of Lake Bottom retained by private individuals. Servitudes, rights of way, and flowage rights were acquired by Bayou D'Arbonne Lake Watershed District (locally referred to as the D'Arbonne Lake Commission).

Size (surface area)

15,000 acres

Watershed

1,607 square miles (67:1 ratio of watershed to lake area). Primarily pine silviculture with bottom land hardwood. Acidic, sandy, infertile soil. Alkalinity and pH low.

Pool Stage

80 feet, MSL

Parish

Union, Lincoln

Border Waters

Corney Bayou and Bayou D'Arbonne above and below the reservoir are designated as scenic streams ([APPENDIX I](#)).

Spillway width

Earthen dam and 799' concrete spillway.

Drawdown description

Until 2013, four 5'x5' cast iron gates in the spillway structure were the only means of lake dewatering. A stop log rack is immediately upstream of these gates. Stop logs were used to prevent complete dewatering of the reservoir in the event of gate failure. Placing the stop logs was difficult due to heavy current and debris in the structure.

The installation of two 10 x 40 ft tainter gates (Figure 1) was completed in 2013. This structure was placed into the earthen dam on the south side of the spillway and was first operated in spring 2014. These gates will be used for flood control and they will provide an additional 80 ft. of spillway. The maximum drawdown potential is now 10 feet below spillway crest height with use of the gates.



Figure 1. Tainter gates installed into the earthen dam on the south side of the D'Arbonne Lake spillway in 2013.

Who controls

Operation and maintenance of the dam and control structure is the responsibility of the Louisiana Department of Transportation and Development (LDOTD). Operation procedures for the purpose of flood control are described in [APPENDIX III](#). Operation of the structure for lake management purposes requires a written request from the Secretary of the Louisiana Department of Wildlife and Fisheries to the Secretary of LDOTD. The request must include details including rate of dewatering, target level, and dates for initiation and completion of the drawdown

Drawdown Schedule

To alleviate confusion regarding the scheduling of D'Arbonne Lake drawdowns, and to enable homeowners to make necessary plans for maintenance and repairs, the D'Arbonne Lake Commission has adopted a drawdown policy in 2004. The policy provides that drawdowns are to be conducted every four years. The tainter gates are to be opened the day after Labor Day. The closure date will be determined by current need for submerged vegetation control, but will fall between November 15 and January 15 of the succeeding year. The four year drawdown may be interrupted if a drawdown becomes necessary for dam inspection or maintenance. If so, the schedule will be reset and the next drawdown would be scheduled four years after the event.

LAKE AUTHORITY

Association

Bayou D'Arbonne Lake Watershed District shall consist of seven commissioners, each of whom shall be a qualified elector of the State of Louisiana who resides within the limits of Lincoln or Union Parishes. The commissioners are appointed by the Governor of Louisiana for a term of 4

years and until their successors have been appointed and qualified. Vacancies are to be filled by the remaining commissioners for the unexpired term. Beginning in 1984, every appointee must be confirmed by the Louisiana Senate and re-submitted for conference by the Governor every 2 years after their initial confirmation.

Members (updated January, 2015)

Cagle, Stephen W President	9365 Highway 2 Farmerville, LA 71241	scaglefish@yahoo.com	Jan., 2017
Edward Lee Vice President			Jan., 2017
David Hopkins Secretary			Jan., 2017
Towns, Terri L. Treasurer	446 Dogwood Ln. Farmerville, LA 71241		Jan., 2018
VACANT			
VACANT			
VACANT			

Contact information

Post Office Box 1613
Ruston, LA 71273-1613
(318) 255-6825

Authorization

Created by R.S. 38:2555 as a political subdivision and budgetary unit.

ACT No. 9 By: Messrs. Field, Napper and Gibbs.

To create and establish the Bayou D'Arbonne Lake Watershed District, to be located in the parishes of Lincoln and Union...

Section 2. The Bayou D'Arbonne Lake Watershed District shall be a political subdivision of the State of Louisiana and a budgetary unit of the State of Louisiana, which shall have as its purpose the conservation of soil and water, developing the natural resources and wealth of the district for sanitary, agricultural and recreational purposes, as the same may be conducive to the public health, safety, convenience or welfare or of public utility or benefit. The creation of the D'Arbonne Lake within the said district as hereinafter authorized shall be for the purpose of conserving the soil and water and developing the natural resources and wealth of the district for sanitary, agricultural or recreational purposes, as the same may be conducive to the public health or public utility or benefit.

MAPS

Maps of D'Arbonne Lake are available from the Farmerville / Union Parish Chamber of Commerce and local area merchants ([APPENDIX II](#)).

Access

There are thirteen public boat launching facilities available for use at D'Arbonne Lake (Table 1). All are free of charge.

Table 1. List of public boat launches located on D'Arbonne Lake, LA.

RAMP NAME	COORDINATES		RAMP	PARKING
Spillway - N Side Below	32° 42' 45.19"	-92° 20' 19.03"	Concrete	Dirt - 10 Trailers
Spillway Ramp - South	32° 42' 40.20"	-92° 20' 52.60"	Concrete	Paved - 10 Trailers
Spillway - North	32° 42' 52.80"	-92° 20' 32.82"	Concrete	Paved - 12 Trailers
Meeks Landing	32° 42' 03.74"	-92° 14' 59.23"	Unimproved	Dirt - 10 Trailers
Hog Pen Landing	32° 49' 13.67"	-92° 30' 20.86"	Concrete	Dirt - 10 Trailers
D'Arbonne State Park	32° 46' 28.76"	-92° 28' 40.60"	Concrete	Paved - 33 Trailers
D'Arbonne Village	32° 47' 13.15"	-92° 27' 27.46"	Concrete	Paved - 10 Trailers
Hwy 2 Ramp	32° 47' 09.74"	-92° 27' 17.69"	Concrete	Paved - 10 Trailers
Jakes Landing	32° 45' 30.56"	-92° 24' 48.05"	Concrete	Paved - 35 Trailers
Old Hwy 33	32° 45' 23.00"	-92° 25' 02.91"	Concrete	Paved - 10 Trailers
Tech Landing	32° 45' 12.03"	-92° 26' 34.41"	Concrete	Dirt - 5 Trailers
Stowe Creek	32° 43' 04.24"	-92° 24' 48.70"	Concrete	Gravel - 15 Trailers
Terral Island	32° 45' 26.68"	-92° 22' 49.51"	Concrete	Dirt - 5 Trailers

Boat Docks

Public boat docks are located at all public boat ramps to enable boaters to temporarily moor boats while parking.

Piers

Fishing piers are located on the State Park grounds. Several have gravel beds constructed in close proximity to increase angler success.

State/Federal facilities

Lake D'Arbonne State Park
3628 Evergreen Road
Farmerville, LA 71241
318-368-2086 or 1-888-677-5200)

Website: www.lastateparks.com/lakedarb/darbonne.htm

Artificial Reefs

A series of artificial reefs have been placed in D'Arbonne Lake for use by recreational fishermen. Maps detailing exact locations on the lake are attached and are available at local area merchants. Coordinates for these reefs are listed below (Table 2).

Table 2. List of artificial reefs placed in D'Arbonne Lake by LDWF.

NAME	MATERIAL	COORDINATES	
State Park Reef	Polyethylene pallets	32 ° 46' 15.36"N	-92 ° 28'41.18"W
Horseshoe Reef	Polyethylene pallets	32 ° 47' 25.34"N	-92 ° 27'17.66"W
4 Mile Reef	Polyethylene pallets	32 ° 46' 37.64"N	-92 ° 25'34.22"W
Stowe Creek Reef	Polyethylene pallets	32 ° 43' 54.09"N	-92 ° 24'12.08"W
Piney Point Reef	Polyethylene pallets	32 ° 44' 33.09"N	-92 ° 22'31.04"W
Reef 5	Polyethylene pallets	32 ° 43' 52.09"N	-92 ° 21'32.04"W

SHORELINE DEVELOPMENT

Commercial

D'Arbonne Motel located on LA Hwy 33

Shoreline development by landowners

Residential with boat houses and piers

PHYSICAL DESCRIPTION OF LAKE

Shoreline length

150 miles

Timber type

The pre-impoundment lake bottom was forested with an oak/gum/cypress complex. The surrounding lands are primarily used for loblolly pine *Pinus taeda* silviculture. Approximately, 5,180 acres were cleared prior to impoundment.

Average depth

8.5 feet

Maximum depth

30 feet

Natural seasonal water fluctuation

4-6 feet

10.8 feet above pool stage in April and May due to flood in 1991

EVENTS / PROBLEMS

Spillway gates closed, November, 1963.

Pool stage achieved January, 1964.

Drawdowns

Annual 5 foot fall drawdowns were initiated in 1964 – extended through 1969.

Drawdown target increased to 8' below pool stage in 1970.

Note: Eight foot drawdowns create extensive dewatering of the impoundment (>50%).

Drawdowns conducted in 1970 (8.8' below pool stage), 1972 (7.9'), 1975 (9.5'), 1978 (10.8'), 1980 (9.9'), 1984 (8.8'), and 1985 (12.7').

Decrease in adult size largemouth bass closely correlated with more drawdowns over 5 feet.
Increased angler harvest during extensive drawdowns strongly suspected as cause.

1994 – Drawdown conducted – target reduced to 5 ft. below pool stage.

2001 - Drawdown conducted for spillway repair and to allow for shoreline property maintenance

2002 – D’Arbonne Lake Commission adopts policy of fall drawdowns every four years. The 5 foot drawdowns are set to begin in 2004. Spillway gates are to be opened the day after Labor Day and closed on November 15. The action was to allow for homeowners to complete necessary repairs, ramp maintenance, channel maintenance, and stump clearing.

2004 – Scheduled drawdown, Labor Day – Nov. 15, 5 ft. below pool stage

2008 – Scheduled drawdown, Labor Day – Jan. 15 (for additional hydrilla control), 5 ft. below pool stage.

2009 – Spillway gate maintenance, Labor Day – approx. Oct. 1, 1.5 ft. below pool stage.

2011 – Construction begins on tainter gates.

2012 – Scheduled drawdown, Labor Day – Dec. 28 (for additional hydrilla control), 5 ft. below pool stage

Flooding

The large watershed of D’Arbonne Lake insures that water levels above pool stage are common. Structures built below design storm elevation (90.00 feet, MSL) will flood with varying degrees of frequency (Table 3). Flood frequency is determined by elevation above the spillway crest. According to flood stage elevation from USGS, approximately 323 structures were flooded in the 1991 flood which reached 90.78 feet, MSL. It's important to note that the second highest recorded water level was 86.1 feet, MSL in 1958, before construction of the D’Arbonne Lake spillway.

Since completion of the reservoir, numerous camps and homes have been constructed around the lake at elevations below 90.00 feet, MSL. The lowest, according to Denmon Engineering field surveys in 1996 and 1997, has a floor elevation of 82.06 feet, MSL, or only 2.06 feet above the spillway crest. A total of 275 structures are located at or below elevation 90.00 feet, MSL.

Table 3. Number of structures flooded for various flood frequencies on D’Arbonne Lake, LA.

FREQUENCY	D’ARBONNE LAKE POOL (feet, MSL)	NUMBER OF STRUCTURES FLOODED
2-year	82.20	1
5-year	84.32	5
10-year	86.64	26
25-year	86.94	80
50-year	88.73	205
100-year	89.76	262

^o Source: State Project No. 505-56-0031, Additional Spillway Capacity Bayou D’Arbonne Lake, Denmon Engineering, April 1998.

June 18, 1997 – Opinion on use of the D’Arbonne Lake spillway for flood control from Paul Colquette, District Design, Water Resources and Development Engineer.

“A flood control reservoir provides flood control benefits only to the area downstream of the dam and spillway. Therefore, D’Arbonne Lake does not and cannot provide flood control benefits for the residents surrounding the lake.”*** “Opening the gates (5x5 gates) during periods of high lake levels will theoretically increase the overall flow out of the lake. However,

the flow increase is such a small percentage; the results are more physiological than actually measurable. Any time the gates are opened, the possibility exists for logs or other debris to become lodged in the gate opening. If this happens, the gate cannot be closed completely until the obstruction is removed. Forcing the gate closed will probably damage the gate or lift mechanism.”

June 14, 1999 - Mr. Ed Preau, DOTD Engineer, affirmed that openings of the four 5'x5' gates offer no significant increase over water that already flows over the 799' spillway. In fact, the significance of the gates is progressively less as water flow increases over the spillway (as in times of high water). He explained that the spillway structure was designed only for infrequent lake dewatering, not flood protection. The gate openings also expose the structure to damage from logs and debris in the gate openings. The cast iron gates and/or the concrete structure can be damaged upon closure of the gates, resulting in partial to extensive dewatering of the lake. Subsequent repairs would be available only from funds, allocated by legislative action, a process not noted for being prompt.

Tainter Gate History

2010 – The option of installing tainter gates into the earthen dam on the south side of the spillway was approved.

2011 – Construction began on flood control tainter gates on the south side of the spillway. The project was expected to be completed in 2013.

2013 – Construction of the tainter gates was completed in fall.

2014 – Tainter gates were first used for flood control on April 6. The lake level reached 82.8' MSL. The Union Parish Police Jury became concerned that the increase in discharge from the tainter gates was responsible for erosion of the Rocky Branch Road (an unpaved road, approximately 8 miles downstream). A request was made to open only one gate when the lake level reached 82.25' MSL. The current procedures for gates operation are provided in [APPENDIX III](#).

Water Supply

July, 20, 2006 – Local newspaper sources reported that federal funds totaling \$500,000 were available for a study to determine feasibility a water pipeline and treatment plant from D'Arbonne Lake to the Farmerville and Ruston areas.

MANAGEMENT ISSUES

AQUATIC VEGETATION

During the warmer months, aquatic vegetation has historically been prevalent in the shallow waters of both the Little D'Arbonne Arm and the Little Corney Arm. During the 20 year period from 1965 to 1985, eight drawdowns were conducted for the purpose of aquatic weed control. Results were generally unsatisfactory. In the 15 year period from 1970 to 1985, drawdowns were increased to more than 5 feet below pool stage. Drawdowns ranged from 7.9 feet below pool to 12.7 feet below pool stage in 1985. The more extensive drawdowns (>5') were correlated with reductions in adult size largemouth bass, crappie, and bluegill.

In 2005, hydrilla was first discovered in D'Arbonne Lake. The invasive plant has expanded in coverage and is now occurs throughout the Bayou D'Arbonne and Corney arms of the lake. Drawdowns temporarily reduce hydrilla coverage in water depths less than five feet, but the plant typically becomes problematic again within two years after a drawdown. Manipulation of lake level with the tainter gates may become necessary to control hydrilla (See MP-B).

Type Maps

The most recent aquatic vegetation type map and survey was completed in September 2013. This report is included as an attachment in D'Arbonne Lake MP-B (updated 2015).

Previous Aquatic Vegetation Type Maps

1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 2005*, 2007*, 2009*, 2011*, and 2013*.

*denotes type map surveys that are on file, using current standardized techniques, maps included.

Vegetation Biomass Sampling

1977, 1978, 1979, 1983, 2002, 2003.

Biological Control

NA

Chemical Control

Applications of glyphosate (0.75 gal/acre) or liquid 2,4-D (0.5 gal./acre) have been routinely conducted from specially equipped boats to control emergent and floating species. Target plant species include alligator weed (*Alternanthera philoxeroides*), water hyacinth (*Eichhornia crassipes*), water primrose (*Ludwigia spp.*) and American lotus (*Nelumbo lutea*). Granular 2,4-D (100 lbs./acre) has also been applied for lotus control. In recent years, the herbicides imazapyr (0.5 gal./acre) and imazamox (0.5 gal./acre) have also been used to control emergent vegetation. Imazapyr is used primarily in undeveloped areas due to label restrictions that limit proximity to irrigation. The majority of the herbicide applications have been made in areas where vegetation has impeded boating access. A small infestation of common salvinia (*Salvinia minima*) was discovered in 2007 and treated with diquat dibromide (1.0 gal/acre). The plant has not been observed since 2009. Aquatic vegetation treatments are listed in Table 4.

Table 4. Treatment history by year of herbicide applications from 2005 – 2014 on D'Arbonne Lake, Louisiana.

YEAR	Most Common Species Treated	Total Acres Treated
2005	American lotus, hydrilla	14
2006	American lotus, alligator weed	32
2007	American lotus, alligator weed	28
2008	water hyacinth	5
2009	common salvinia, water hyacinth	16
2010	none treated	0
2011	American lotus, primrose, hydrilla	85
2012	American lotus, water hyacinth, hydrilla	59
2013	American lotus	45
2014	American lotus (105), alligator weed (15)	120

Physical

Drawdowns on D'Arbonne Lake have been used frequently for aquatic weed control. Descriptions are provided in Table 6.

HISTORY OF REGULATIONS

Recreational

Statewide regulations for all fish species, the recreational fishing regulations may be viewed at the link below:

<http://www.wlf.louisiana.gov/fishing/regulations>

Special Regulations

Title 76

WILDLIFE AND FISHERIES

Part VII. Fish and Other Aquatic Life

Chapter 1. Freshwater Sports and Commercial Fishing

§134. Lake D'Arbonne (Union Parish),

- Yo-Yo restrictions
 - No more than 50 yo-yos, or trigger devices, shall be allowed per person.
 - Each yo-yo or trigger device shall be clearly tagged with the name, address and telephone number of the owner or user.
 - All fish or any other animals caught or hooked, shall be immediately removed from the device.
 - Each yo-yo or trigger device must be re-baited at least once every 24 hours.
 - When not being used in accordance to the above regulations, each yo-yo or trigger device shall be removed immediately from lake waters.
 - No yo-yo or trigger device shall be attached to any metallic object.
- Trotline Restrictions
 - All trotlines must be marked, tagged, and dated with the owner or user's name, address, phone number and the date of placement. The trotline must be marked on each end with a

floating object that is readily visible.

- No person shall set more than three trotlines with a maximum of 50 hooks per trotline.
- All trotlines must be removed from lake waters when not in use.
- All trotlines must have an 8-foot cotton leader on each end of the trotline to insure that if the trotline is left unattended, the cotton leader will deteriorate and the line will sink.
- All trotlines must be attended daily while in service.

Proposed Largemouth Bass Regulations

March, 2001 – The period of 1999-2000 was one of improved angling success for D’Arbonne Lake. Moderation in the frequency and extent of lake drawdowns is credited with much of the positive influence. In addition, benefits of Florida bass introductions were attracting angler attention with trophy size bass (including one bass >15 pounds in 2000). Some anglers expressed interest in additional management tools including largemouth bass harvest restrictions.

In related discussions with the D’Arbonne Lake Commission, LDWF staff explained that angler support was a critical element to the success of any harvest restriction. Angler opposition to slot limits was immediately acknowledged due to the popularity of bass tournaments on D’Arbonne Lake. A review of LDWF sampling data indicated a minimum length limit would be ineffective unless the restriction was set at least 16 inches.

Adjustments to the D’Arbonne Lake largemouth bass creel limit were not considered. The purposes of a daily creel limit are to prevent over-harvest of the fishery, to allow equitable distribution harvest, and to give anglers a reasonable target to mark their fishing success. Harvest may reduce the number of quality-size bass available to anglers, but seldom to the detriment of a population’s ability to sustain through natural recruitment. The equitable distribution of harvest is implied through a daily creel limit. Distribution of harvest is more dependent on angling skill than on a daily creel limit. Further, obtaining a daily limit of 10 bass is a relatively rare event. The options are to reduce the creel limit to a biologically significant level was rejected because the required reduction in creel would be unacceptable to anglers.

With support from the D’Arbonne Lake Commission, the following Notice to the Anglers of D’Arbonne Lake was published in the Farmerville Gazette, the Ruston Daily Leader, and the Monroe News Star.

Notice to Anglers of D’Arbonne Lake:

Public comment is now being requested concerning a change in D’Arbonne Lake largemouth bass regulations. D’Arbonne Lake is currently listed under statewide regulations for largemouth bass that include no length limit and a 10 fish daily creel limit. Regulations being considered include a 16" minimum length limit, with a 10 fish daily creel limit.

The issue originated from expressed angler desire to enhance the existing population with harvest restrictions designed to produce larger bass. LDWF analysis indicates that a 16" minimum size limit would be required to effect beneficial change to the current bass population. By protecting largemouth bass smaller than 16" in length, the regulation would decrease angler harvest rate, but would increase angler catch rate.

Until recently, LDWF biologists have recommended against additional harvest restrictions for D’Arbonne Lake, advising that any changes be contingent on the successful incorporation of Florida bass, and angler approval. Florida bass stockings have now been confirmed as successful. Local angler opinion will now determine if the process to implement

the proposal is initiated under the Louisiana Administrative Procedures. Your written comments are requested and encouraged. Please mail a short message with your opinion to:

LA Department of Wildlife and Fisheries

Attn: Mike Wood

368 CenturyTel Park Drive

Comments were received for a 30 day period. Final count was 8 in favor of the proposal and 18 against. As a result, the process to initiate length regulations for largemouth bass was not recommended.

Crappie Regulations History

In April 2008, at a regularly scheduled meeting of the D'Arbonne Lake Commission, LDWF presented information concerning regulations for crappie. The presentation was in response to angler request for more restrictive crappie regulations (10" minimum length limit and 25 fish/day creel limit) to improve the quality of the crappie population. Utilizing age and growth data from D'Arbonne Lake crappie, LDWF advised against the proposed changes, citing only minimal potential benefits. For example, that there would only be a slight increase in survival of age 2 fish under a 10 inch minimum length limit and there would be no benefit to the population with a reduced creel limit of 25 crappie per day. Throughout 2009, LDWF conducted an on-the-water opinion survey of D'Arbonne Lake anglers to gain information on angler perception of crappie management. Overall, 67% of 223 anglers expressed satisfaction with the current regulations, while the remainder desired change (minimum length, reduced creel limit, or both). This issue resurfaced in the fall of 2011 and the Louisiana Wildlife and Fisheries Commission approved a 25 fish/day creel limit for D'Arbonne Lake crappie. The regulation became effective on November 15, 2012 (see [APPENDIX IV](#)).

In April 2013, the Louisiana Legislature passed Act 334, which returned the D'Arbonne Lake crappie creel limit 50 fish/day and prohibited Louisiana Wildlife and Fisheries Commission from amending D'Arbonne Lake crappie regulations.

In 2014, Senate Bill 369 (Walsworth – West Monroe) returned regulatory authority for D'Arbonne Lake crappie to the Louisiana Wildlife and Fisheries Commission.

Commercial

The commercial fishing regulations may be viewed at the link below:

<http://www.wlf.louisiana.gov/fishing/regulations>

Gill and trammel nets were removed from the main part of the lake in the 1970s to protect stocked striped bass. Later, webbing was again allowed. On June 20, 1984, trammel nets, gill nets, flag webbing, and fish seines were prohibited in D'Arbonne Lake. Hoop nets, slat traps, trotlines, limb lines and stump hooks are allowed. No nets are allowed during drawdowns (includes hoop nets).

Title 76 - WILDLIFE AND FISHERIES

Part VII. Fish and Other Aquatic Life

Chapter 1. Freshwater Sports and Commercial Fishing

§111. D'Arbonne Lake

A. Whereas, the Bayou D'Arbonne Lake Watershed District Commission, the local regulatory body for D'Arbonne Lake passed a resolution at its meeting on February 7, 1984 prohibiting

trammel nets, gill nets, flag nets, and fish seines in D'Arbonne Lake effective June 1, 1984, and subsequently have requested the Wildlife and Fisheries Commission to ratify said resolution; and B. whereas, studies conducted by the Department of Wildlife and Fisheries on D'Arbonne Lake have demonstrated the detrimental effects the use of certain types of commercial fish nets have on game fish populations; and C. whereas, D'Arbonne Lake does not support high poundage of commercial species nor a true commercial fisheries; and D. whereas, the most sought after commercial species, catfish (flathead), can still be harvested adequately using hoop nets, slat traps, trot lines, limb lines, and stump lines.

E. Therefore be it resolved, the Louisiana Wildlife and Fisheries Commission hereby prohibits the use of gill nets, trammel nets, flag nets and fish seines in D'Arbonne Lake (Union and Lincoln Parishes) and includes all areas between the spillway structure and Gill's Ferry Landing on D'Arbonne Creek and Hogpen Landing on Corney Creek.

AUTHORITY NOTE: Promulgated in accordance with R.S. 56:22.

HISTORICAL NOTE: Promulgated by the Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 10:470 (June 1984).

DRAWDOWN HISTORY

D'Arbonne Lake drawdowns have been conducted for a variety of purposes (Table 5). The most common has been to control overabundant submerged vegetation in the upper reaches of the reservoir. Results were generally disappointing. The large watershed of D'Arbonne Lake makes the maintenance of low water levels uncertain. During several drawdown efforts, the lake level has rapidly rebounded several feet due to heavy rains. The drawdown of 2008 was successful in temporarily removing much of the hydrilla from depths less than five feet. By mid-summer 2011, hydrilla had completely re-infested the areas and began to expand in coverage. Following the drawdown of 2012, hydrilla had yet to form vast surface mats. Only scattered plants were observed in the D'Arbonne Bayou arm of the lake during the late summer months of 2014.

Table 5. History of drawdowns on D'Arbonne Lake, LA from 1964 to 2008.

DATE	PURPOSE	LOWEST LEVEL	GATES OPENED	BACK TO POOL STAGE
1964	Boat Ramp Construction	5.0'	09/04/64	01/24/65
1965	Weed Control	5.2'	09/11/65	02/09/66
1966	Weed Control	4.9'	09/13/66	02/22/67
1968	Weed Control	5.3'	09/10/68	12/13/68
1969	Weed Control	5.1'	07/31/69	01/09/70
1970	Weed Control	8.8'	09/09/70	03/12/71
1971	Weed Control	7.9'	09/05/72	12/16/72
1972	Weed Control	7.9'	09/05/72	12/16/72
1973	Drawdown attempted, but unsuccessful			
1974	Drawdown attempted, but unsuccessful			
1975	Spillway	9.5'	08/18/75	02/08/76

	Repair			
1978	Construction, Channel marking	10.8'	07/17/78	01/10/79
1980	Spillway Gate Repair	9.9'	09/11/80	04/03/81
1984	Weed Control	8.4'	09/10/84	10/26/84
1985	Weed Control, Spillway repair	12.7'	09/05/85	02/10/86
1994	Dock and seawall repair	5.5'	09/20/94	
2001	Dock and seawall repair	5.0'	10-15-01	01-15-02
2004	Boat lane project & Dock and seawall repair	5.0'	09-07-04	12-15-04
2008	Dock and seawall repair, hydrilla control	5.0'	9-02-08	01-15-09
2012	Dock and seawall repair, hydrilla control	5.0'	9-04-12	12-28-12

Fishing closure

Recreational fishing has not been prohibited during any D'Arbonne Lake drawdown. Commercial fishing is prohibited during drawdowns.

Estimated % exposed

The percent of lake bottoms exposed during drawdowns at various water levels is shown in Table 6.

Table 6. Percentages of lake bottom exposed on Lake D'Arbonne, LA at various water levels.

LAKE LEVEL	WATER SURFACE AREA	PERCENTAGE LAKE BOTTOM EXPOSED
80 foot, MSL (pool stage)	15,000	0%
5 foot below pool stage	8,819	41%
10 foot below pool stage	6,949	54%
15 foot below pool stage	5,411	64%

Areas determined by planimeter of D'Arbonne Lake contour map from *Contour Maps of Major Lakes in Louisiana*, Janice S. Hughes, 1972.

Who operated structure

Louisiana Department of Transportation and Development is responsible for the maintenance and operation of 19 reservoir embankments, including D'Arbonne Lake, to maintain their integrity and to prevent any breach or damage to the existing facilities as per Act 270 of 1984.

Fish Kills

No fish kills reported during any D'Arbonne drawdowns.

FISH KILLS / DISEASE HISTORY

LMBV sampling conducted in 2000 (11% of 64 fish positive). Sampling also conducted in 2003 (20% of 60 fish sample – positive). Fish kills were reported during spring and early summer. These kills have consisted almost entirely of channel catfish and were attributed to releases from catfish traps that had been placed in depths that became subject to hypoxia during the development of a thermocline.

A fish kill was reported in the upper reaches of the Bayou D'Arbonne arm in September 2007. The kill was significant with many species documented. The cause of the kill was attributed to release of water from upstream Lake Claiborne, with most of the fish believed to have been affected in an area immediately below the Lake Claiborne spillway.

CONTAMINANTS / POLLUTION

Water quality

No water quality impairments documented for D'Arbonne Lake. Water quality concerns noted for D'Arbonne watershed. Related US Environmental Protection Data is provided in [APPENDIX V](#). Additional information available from the following LADEQ links:

<http://www.deq.louisiana.gov/portal/Portals/0/planning/305b/2004/04%20IR1-FINAL-Appendix%20A%20WITH%20FINAL%20EPA%20ADDITIONS%20-%20August%2017%202005.xls>

Water level

Historic and real-time water level data is available from the USGS site below:

http://waterdata.usgs.gov/la/nwis/uv/?site_no=07366364&PARAMeter_cd=00065,72020,63160,00060

BIOLOGICAL

Fish Sampling History

Rotenone (biomass) sampling was conducted from 1964 – 1995. Rotenone sampling was discontinued due to negative public sentiment and availability of data from alternative sampling techniques. Electrofishing is currently used as the primary largemouth bass sampling tool. Lead netting is utilized as the primary crappie sampling tool. Gill netting is used to sample large fish, including bass and commercial species. Table 7 below describes LDWF sampling efforts since

1964 and scheduled sampling until 2014.

Table 7. Summary of fish sampling on Lake D'Arbonne, LA from 1964 – 2014.

D'ARBONNE LAKE FISH SAMPLING	
1964 – 1991	Rotenone 8 to 12—one acre sets (No rotenone samples in 1975, 1989, or 1990.
1989	Electrofishing (3)15 minute samples
1990	Electrofishing (5)15 minute samples (spring and fall) Shoreline seining 18 samples 100' experimental gill nets 2 samples
1991	Electrofishing (10)15 minute samples (spring and fall) Rotenone 4—one acre sets
1992	No sampling
1993	Electrofishing (10)15 minute samples (spring and fall) Gill Netting – 9 samples each including: 300' 2.5, 3.0, 3.5 in. bar.
1994	Electrofishing (7)15 minute samples (fall only) Frame Nets – 7 sets
1995	Electrofishing (8)15 minute samples (spring and fall) Rotenone 4—one acre sets
1996	Gill Netting – 9 samples each including: 9 samples each including: 300' 2.5, 3.0, 3.5, 4.0 in. bar. Frame Nets – 7 sets
1997	Electrofishing – (8)15 minute samples (spring and fall)
1998	No sampling
1999	Electrofishing •–(8) 15 minute samples (spring and fall) •Age & growth •Genetics Frame/Lead Nets - 9 stations Shoreline Seining
2000	Electrofishing •–(8) 15 minute samples (spring and fall) Gill Netting - 9 stations
2001	Electrofishing •–(9) 15 minute samples (spring and fall)

2002	Electrofishing •–(9)15 minute samples (spring and fall) •Age & growth •Genetics Frame/Lead Nets - 9 stations
2003	Electrofishing •–(9)15 minute samples (spring and fall) Frame/Lead Nets - 9 stations
2004	No sampling
2005	Aquatic Type Map Electrofishing •–(9)15 minute samples (spring and fall) •Age & growth •Genetics
2006	Lead Nets - 9 stations Gill Netting - 9 stations Shoreline Seining
2007	Aquatic Type Map Electrofishing •–(9)15 minute samples (spring and fall) •Age & growth •Genetics
2008	Shoreline Seining
2009	Aquatic Type Map Electrofishing •–(9) 15 minute samples (spring and fall) •Age & growth •Genetics Lead Nets - 9 stations Gill Netting - 9 stations
2010	Electrofishing •–(9) 15 minute samples (spring and fall) •Age & growth •Genetics Lead Nets - 9 stations Gill Netting - 9 stations Mortality Study – first year

2011	Aquatic Type Map Electrofishing •(9) 15 minute samples (spring and fall) •Age & growth •Genetics Lead Nets - 9 stations Mortality Study – second year Recreational Angler Creel Survey
2012	Aquatic Type Map Electrofishing •(9) 15 minute samples (spring and fall) •Age & growth •Genetics Lead Nets - 9 stations Mortality Study – third year Gill Netting – 9 stations
2013	Shoreline Seining – 5 samples
2014	Aquatic Type Map Electrofishing •(9) 15 minute samples (spring and fall) (fall forage)
2015	Lead Nets – 9 stations Gill Netting – 9 stations
2016	Aquatic Type Map Electrofishing •(9) 15 minute samples (spring and fall) •Largemouth Bass Genetics
2017	Lead Nets – 9 stations

Largemouth Bass and Crappie Stock Assessments

A bass and crappie stock assessment study for D'Arbonne Lake was completed in December 2012. This was an intensive study which involved age and growth analysis of largemouth bass and crappie over a three year period and a recreational angler creel survey for one year. These data were used to produce mortality estimates, age and growth models, and yield per recruit models which will aid in determining the most appropriate management of these species. Summaries of the stock assessments can be viewed in D'Arbonne Lake MP-B.

Lake records

No listing of D'Arbonne Lake record fish is compiled. See LOWA State Records

<http://www.laoutdoorwriters.com/Records/LouisianaFishRecords/tabid/87/Default.aspx>

Note: A 15.31 pound D'Arbonne Lake bass was caught in 2000. A 13 pound, 6 ounce bass was caught in 1990.

Stocking History

The native fish population was not removed before impoundment of Lake D'Arbonne. The stocking history of D'Arbonne Lake is provided in Table 9.

Table 9. Stocking history of D'Arbonne Lake.

Date	Number / Species Stocked
1964	largemouth bass, black crappie, bluegill, channel catfish
1965	6,100 striped bass, 91,454 walleye
1967	16,870 striped bass
1968	79,279 striped bass
1969	70,500 striped bass
1970	111,633 striped bass
1971	81,613 striped bass
1972	2,644 striped bass
1973	7,232 striped bass
1974	6,110 striped bass
1975	207,165 striped bass
1976	20,540 channel catfish
1977	150,142 striped bass, 24,200 blue and channel catfish
1978	191,950 striped bass
1979	170,255 striped bass
1980	37,130 striped bass
1981	150,114 striped bass
1982	151,876 hybrid striped bass
1983	111,515 hybrid striped bass
1984	149,166 hybrid striped bass
1985	75,000 Florida largemouth bass, 152,334 hybrid striped bass
1986	4,290 channel catfish, 1,564 blue catfish
1987	75,000 Florida largemouth bass
1992	4,000 Florida largemouth bass (bought from bass tournament proceeds)
1995	138,143 Florida largemouth bass
1999	140,728 Florida largemouth bass
2000	3,300 Florida largemouth bass fry (from Lunker Program - 15.31# bass) 155,176 Florida bass fingerlings
2001	163,239 Florida bass fingerlings
2002	75,456 Florida bass fingerlings
2003	135,841 Florida bass fingerlings
2004	135,841 Florida bass fingerlings
2005	149,481 Florida bass fingerlings
2007	151,024 Florida bass fingerlings
2008	87,714 Florida bass fingerlings
2009	85,142 Florida bass fingerlings
2010	17,141 Florida bass fingerlings
2011	151,734 Florida bass fingerlings

2012	150,990 Florida bass fingerlings
2014	299,413 Florida bass fingerlings

Genetics

Largemouth bass genetic sampling has been conducted in the years: 2000, 2002, 2003, 2005, 2010*, 2011*, and 2012*.

*genetics sampling was conducted as part the largemouth bass stock assessment.

Species profile

LIST OF INDIGENOUS FRESHWATER FISHES OF THE D'ARBONNE DRAINAGE*

Lamprey Family, PETROMYZONTIDAE

Southern brook lamprey, *Ichthyomyzon gagei* Hubbs and Trautman
Chestnut lamprey, *Ichthyomyzon castaneus* Girard

Paddlefish Family, POLYODONTIDAE

Paddlefish, *Polyodon spathula* (Walbaum)

Gar Family, LEPISTOSTEIDAE

Spotted gar, *Lepisosteus oculatus* (Winchell)
Longnose gar, *Lepisosteus osseus* (Linnaeus)
Shortnose gar, *Lepisosteus platostomus* Rafinesque
Alligator gar, *Lepisosteus spatula* (Lacépède)

Bowfin Family, AMIIDAE

Bowfin, *Amia calva* Linnaeus

Mooneye Family, HIODONTIDAE

Goldeye, *Hiodon alosoides* (Rafinesque)
Mooneye, *Hiodon tergisus* Lesueur

Freshwater Eel Family, ANGUILLIDAE

American eel, *Anguilla rostrata* (Lesueur)

Herring Family, CLUPEIDAE

Skipjack herring, *Alosa chrysochloris* (Rafinesque)
Gizzard shad, *Dorosoma cepedianum* (Lesueur)
Threadfin shad, *Dorosoma petenense* (Günther)

Minnow Family, CYPRINIDAE

Blacktail shiner, *Cyprinella venusta* (Girard)
Common Carp, *Cyprinus carpio* Linnaeus
Cypress minnow, *Hybognathus hayi* Jordan
Mississippi silvery minnow, *Hybognathus nuchalis* Agassiz
Striped shiner, *Luxilus chrysocephalus* Rafinesque
Ribbon shiner, *Lythrurus fumeus* Evermann
Redfin shiner, *Lythrurus umbratilis* (Girard)
Golden shiner, *Notemigonus crysoleucas* (Mitchill)

Pallid shiner, *Notropis amnis* Hubbs and Greene
Emerald shiner, *Notropis atherinoides* Rafinesque
Bluehead shiner, *Notropis hubbsi* Bailey and Robison
Taillight shiner, *Notropis maculatus* (Hay)
Weed shiner, *Notropis texanus* (Girard)
Mimic shiner, *Notropis volucellus* (Cope)
Pugnose minnow, *Notropis emiliae* Hay
Bluntnose minnow, *Pimephales notatus* (Rafinesque)
Bullhead minnow, *Pimephales vigilax* (Baird and Girard)
Creek chub, *Semotilus atromaculatus* (Mitchill)

Sucker Family, CATOSTOMIDAE

Creek chubsucker, *Erimyzon oblongus* (Mitchill)
Lake chubsucker, *Erimyzon sucetta* (Lacépède)
Smallmouth buffalo, *Ictiobus bubalus* (Rafinesque)
Bigmouth buffalo, *Ictiobus cyprinellus* (Valenciennes)
Black buffalo, *Ictiobus niger* (Rafinesque)
Spotted sucker, *Minytrema melanops* (Rafinesque)
Blacktail redhorse, *Moxostoma poecilurum* (Jordan)

Freshwater Catfish Family, ICTALURIDAE

Black bullhead, *Ameiurus melas* (Rafinesque)
Yellow bullhead, *Ameiurus natalis* (Lesueur)
Blue catfish, *Ictalurus furcatus* (Lesueur)
Channel catfish, *Ictalurus punctatus* (Rafinesque)
Tadpole madtom, *Noturus gyrinus* (Mitchill)
Brindled madtom, *Noturus miurus* Jordan
Freckled madtom, *Noturus nocturnus* Jordan and Gilbert
Brown madtom, *Noturus phaeus* Taylor
Flathead catfish, *Pylodictis olivaris* (Rafinesque)

Pike Family, ESOCIDAE

Grass pickerel, *Esox americanus vermiculatus* Lesueur
Chain pickerel, *Esox niger* Lesueur

Pirate Perch Family, APHREDODERIDAE

Pirate perch, *Aphredoderus sayanus* (Gilliams)

Killifish Family, CYPRINODONTIDAE

Golden topminnow, *Fundulus chrysotus* (Günther)
Starhead topminnow, *Fundulus nottii* (Agassiz)
Blackstripe topminnow, *Fundulus notatus* (Rafinesque)
Blackspotted topminnow, *Fundulus olivaceus* (Storer)

Livebearer Family, POECILIIDAE

Western mosquitofish, *Gambusia affinis* (Baird and Girard)

Silverside Family, ATHERINIDAE

Brook silverside, *Labidesthes sicculus* (Cope)

Temperate Bass Family, PERCICHTHYIDAE

- White bass, *Morone chrysops* (Rafinesque)
- Yellow bass, *Morone mississippiensis* Jordan and Eigenmann
- Striped bass, *Morone saxatilis* (Walbaum)
- Palmetto bass, *Morone saxatilis* & *Morone chrysops* (cross)

Sunfish Family, CENTRARCHIDAE

- Flier, *Centrarchus macropterus* (Lacépède)
- Banded pygmy sunfish, *Elassoma zonatum* Jordan
- Green sunfish, *Lepomis cyanellus* Rafinesque
- Warmouth, *Lepomis gulosus* (Cuvier)
- Orangespotted sunfish, *Lepomis humilis* (Girard)
- Bluegill, *Lepomis macrochirus* (Rafinesque)
- Dollar sunfish, *Lepomis marginatus* (Holbrook)
- Longear sunfish, *Lepomis megalotis* (Rafinesque)
- Redear sunfish, *Lepomis microlophus* (Günther)
- Spotted sunfish, *Lepomis punctatus* (Valenciennes)
- Bantam sunfish, *Lepomis symmetricus* Forbes
- Spotted bass, *Micropterus punctulatus* (Rafinesque)
- Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)
- White crappie, *Pomoxis annularis* Rafinesque
- Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Perch Family, PERCIDAE

- Scaly sand darter, *Ammocrypta vivax* Hay
- Mud darter, *Etheostoma asprigene* (Forbes)
- Bluntnose darter, *Etheostoma chlorosomum* (Hay)
- Creole darter, *Etheostoma collettei* Birdsong and Knapp
- Swamp darter, *Etheostoma fusiforme* (Girard)
- Slough darter, *Etheostoma gracile* (Girard)
- Harlequin darter, *Etheostoma histrio* Jordan and Gilbert
- Goldstripe darter, *Etheostoma parvipinne* Gilbert and Swain
- Cypress darter, *Etheostoma proeliare* (Hay)
- Redfin darter, *Etheostoma whipplei* (Girard)
- Logperch, *Percina caprodes* (Rafinesque)
- Blackside darter, *Percina maculata* (Girard)
- Blackbanded darter, *Percina nigrofasciata* (Agassiz)
- Dusky darter, *Percina sciera* (Swain)

Drum Family, SCIAENIDAE

- Freshwater drum, *Aplodinotus grunniens* Rafinesque

RECREATIONAL ANGLER CREEL SURVEYS

Historic Information/Type

Recreational angler surveys were conducted for 12-month periods during 1964-70, 1981, 1983, and 2011. The most recent creel survey was conducted in 2011 as an access survey with boat

counts conducted by lake zones. This survey was a requirement for the largemouth bass and crappie stock assessments initiated in 2010.

Summary of D'Arbonne Lake Creel Survey 2011

Interview Days = 63 (3/mo July – Sept.)

Interviews = 337

Avg. duration of trip = 4.4 hrs.

Avg. number in party = 1.6

Avg. distance driven = 24 miles

Catch Rates

Bass/Hr = 0.45

Bass/Trip = 1.57

Crappie/Hr = 0.49

Crappie/Trip = 2.21

WATER USE

Hunting

Related Bayou D'Arbonne Lake Watershed District regulations listed in [APPENDIX VI](#).

Skiing

Approximately 1,000 acres were cleared of timber immediately upstream of the dam prior to impoundment. In addition, 1,000 acres were cleared of timber in the vicinity of Hwy 33. Both areas are designated and marked with buoys for skiing.

Swimming

There is no longer a designated swimming area on the lake.

Irrigation

Residential

APPENDIX I

[\(return to border waters \)](#)

RELATED NATURAL AND SCENIC RIVERS INFORMATION

The following rivers or designated segments thereof are hereby designated as being natural and scenic rivers:

Bayou D'Arbonne - Union, Ouachita - From the Lake D'Arbonne dam to its entrance into the Ouachita River.

Corney Bayou - Claiborne, Union - From the Louisiana-Arkansas state line to Corney Lake

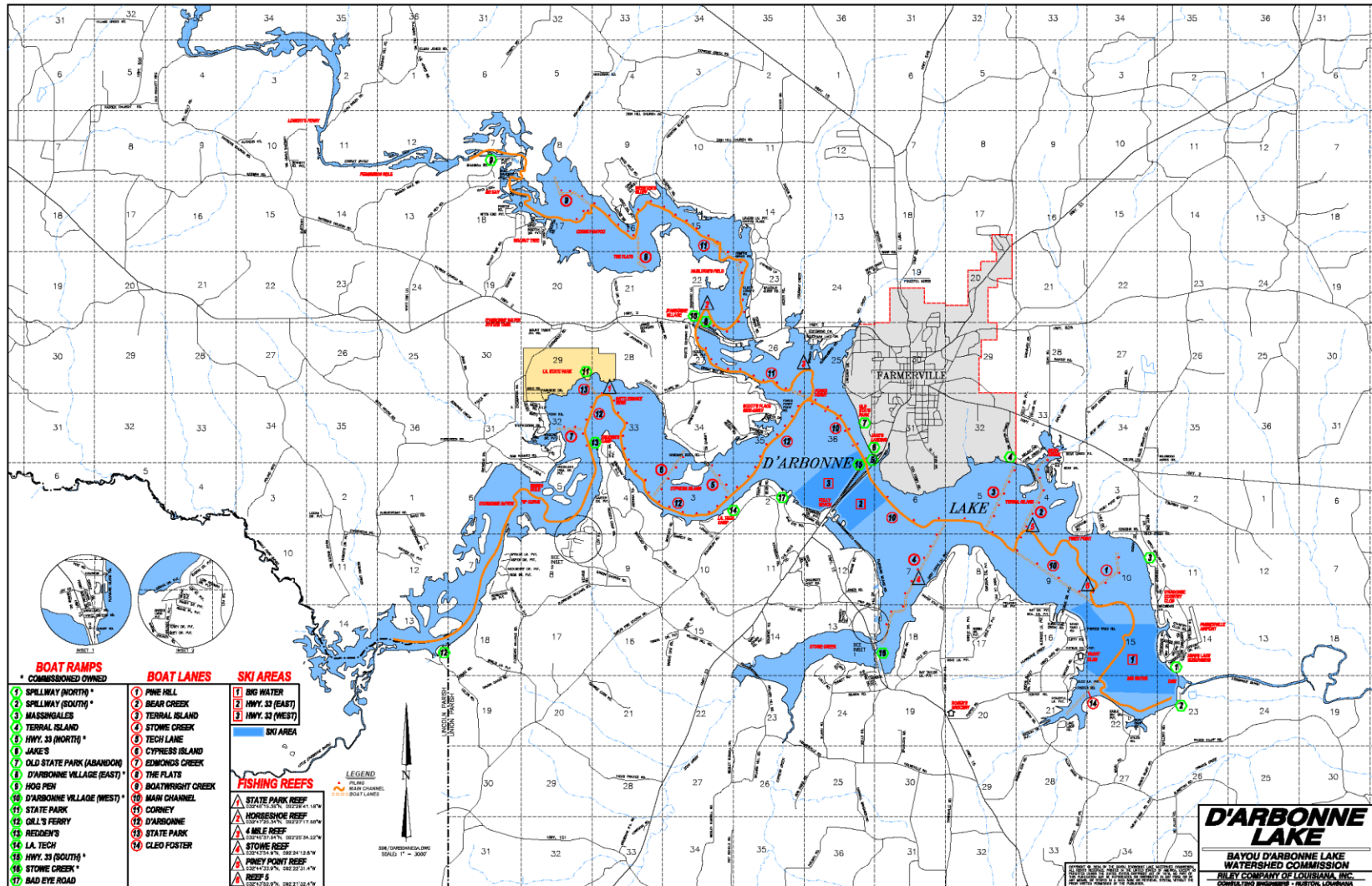
Corney Lake Dam to Lake D'Arbonne.

Middle Fork of Bayou D'Arbonne - Claiborne, Union - From its origin near La. Hwy. 2 alternate to Lake D'Arbonne. Notwithstanding any other law to the contrary, however, that portion of the bayou located in Sections 19, 20, 21, and 28 of Township 23 North, Range 7 West in Claiborne Parish shall not be a natural and scenic river; provided however, if a reservoir and dam in said portion of the bayou are not approved, funded, and under construction by September 1, 1995, said portion of the bayou shall be a natural and scenic river.

APPENDIX II

[\(return to maps\)](#)

MAP OF D'ARBONNE LAKE



APPENDIX III

[\(Return to Tainter History\)](#)

D'Arbonne Tainter Gate Opening Plan – 9/19/14

The goal of the D'Arbonne Tainter Gate Opening Plan is to maximize the gates capabilities while managing public protection and risk from flooding events for optimal flood hazard mitigation.

Gate Opening Limitation Charts

Included in the “*D'Arbonne Lake Reservoir Tainter Gated Spillway Operations and Procedure Manual*” are gate opening charts of allowable gate opening heights for opening one or two gates. The charts were developed through the cooperation of Louisiana Department of Wildlife and Fisheries, Louisiana Department of Transportation and Development (DOTD), D'Arbonne Lake Commission, and Riley Company of Louisiana Inc. Some considerations when developing the chart were:

- 1) Limiting lake drawdown to approximately 4” per day. The 4” per day drawdown limitation is intended to not strand fish in shallow water, minimize pore pressure behind retaining walls, minimize effects downstream, and match historical values.
- 2) Gates are to be opened when the water elevation at the spillway reaches 82.25 feet or is predicted to reach 82.25 feet.
- 3) Allow the lake to reach elevation 82.25 feet to retain historic fish spawning cycles.
- 4) Limiting gate discharge to historical values when D'Arbonne Bayou is within its banks. The impact of increased discharge downstream is mitigated by maintaining historical discharge values when the elevation of D'Arbonne Bayou below the spillway is less than 65 feet. When D'Arbonne Bayou exceeds elevation of 65 feet, effects downstream are minimized as water is spread out into flood plain.

Gate Opening Procedure

The lake level, along with other gauge readings, shall be monitored regularly by the DOTD and the D'Arbonne Lake Commission. More frequent monitoring is required during heavy rain events. A log form (Figure 4, Sheet 10 of the “*D'Arbonne Lake Reservoir Tainter Gated Spillway Operations and Procedure Manual*”) shall be completed each time gauges are read, gates are opened/closed or gate opening is adjusted. Original log forms shall be kept on file at the Area Engineers office in Ruston. Prior to opening gates, the Union Parish Police Jury and Sheriff's office shall be notified. Gates shall be opened when D'Arbonne Lake reaches elevation 82.25 feet at the spillway as per corresponding allowable gate opening heights and procedure included in gate operation manual. The water elevation at Little Corney Bayou near Lillie can be used to predict lake elevation at spillway as per chart page 19 of 19 of “*D'Arbonne Lake Reservoir Tainter Gated Spillway Operations and Procedure Manual*.”

Gate Closing Procedure

The lake level, along with other gauge readings, shall be monitored and logged daily when gates are open and shall continue until all gates are closed and the lake elevation at D'Arbonne Spillway reaches 81.75 feet. Gate openings should be adjusted as per allowable gate opening heights included in gate operation manual. All gates shall be closed when the lake elevation at D'Arbonne Spillway reaches elevation 81.75 feet and the lake is predicted to continue to fall.

Rules of Thumb for Gate Operation

The following is a summary of helpful information for lake level control:

- 1) Box area in yellow on allowable gate opening heights included in gate operation manual is for the lake at 80 feet and a low Bayou D'Arbonne downstream elevation. Anything outside of this box could draw lake down greater than 4" per day. The 4" per day is a request of LDWF and is intended to not strand fish in shallow water, minimize pore pressure behind retaining walls, minimize effects downstream, and match historical values. Since every possible rain pattern cannot be estimated, working outside this box will be determined on a case by case basis.
- 2) The intention is to have some gate opening when the lake level reaches 82.25 feet. The gates can also be opened when the lake is anticipated to reach 82.25 feet. The top line of the allowable gate opening heights included in gate operation manual in red is for clarification that at 82.25 feet, the gate should be open and at these amounts as a minimum.
- 3) To help predict when lake level will reach 82.25 feet at D'Arbonne Spillway so gates can be opened preemptively, the elevation at Little Corney Bayou near Lillie can be used. There is an approximate one day lag time between water rising at Little Corney Bayou near Lillie and water rising at D'Arbonne Spillway. This is only an estimate. The lake can rise without any water entering Little Corney.
- 4) When D'Arbonne Bayou, downstream of spillway, reaches an elevation of approximately 60 feet, the bank is full. Additional flow at or above 65 feet would spread out into flood plain with minimal impact. That is why the range of 54 feet to 65 feet is separated. If the opening values in the tables for 54 feet to 65 feet are maintained, flows downstream will mirror historical values.
- 5) If drawdown of the lake is required while lake level is at or below 80 feet, a gate height opening for one gate of 2 feet above the sill should produce a lake drop of 4 to 6 inches per day. Once the lake level is below 78 feet, a greater opening may be required to sustain the 4 inch per day drop.

Closing

The opening and closing recommendations included in this plan are based on historical data and engineering judgment. The actual lake elevation can be affected by timing, the intensity of heavy rains, summer evaporation rates, wet/dry years, etc. It is expected that these charts and requirements will require adjusting as future data is gathered.

APPENDIX IV

[\(return to crappie regs\)](#)

NOTICE OF INTENT

Department of Wildlife and Fisheries

Wildlife and Fisheries Commission

The Wildlife and Fisheries Commission hereby establishes the following Rule on Crappie (*Pomoxis* spp.) on Bayou D'Arbonne Lake, located in Union and Lincoln Parishes, Louisiana.

Title 76

WILDLIFE AND FISHERIES

Part VII. Fish and Other Aquatic Life

Chapter 1. Freshwater Sports and Commercial Fishing

§197. Crappie Regulations – Daily Take

A. – A.1.a....

B. Bayou D'Arbonne Lake (Union and Lincoln Parishes) including all areas between the Bayou D'Arbonne spillway structure and Gill's Ferry Landing on D'Arbonne Creek and Hogpen Landing on Corney Creek.

1. Daily Limit – 25 fish per person

a. on water possession – same as daily limit per person.

AUTHORITY NOTE: Promulgated in accordance with R.S.

56:325.1(c).

HISTORICAL NOTE: Promulgated in accordance with Department of Wildlife and Fisheries, Wildlife and Fisheries Commission, LR 30:2339 (October 2004), amended LR 38:2941(November 2012), amended LR 39:

The secretary of the Department of Wildlife and Fisheries is authorized to take any and all necessary steps on behalf of the Commission to promulgate and effectuate this Notice of Intent and the final Rule, including but not limited to, the filing of the Fiscal and Economic Impact Statements, the filing of the Notice of Intent and final Rule and the preparation of reports and correspondence to other agencies of government.

Interested persons may submit written comments of the Notice of Intent to Mr. Mike Wood, Director, Inland Fisheries Section, Department of Wildlife and Fisheries, Box 98000, Baton Rouge, LA 70898-9000 no later than 4:30 p.m., June 2013.

In accordance with Act #1183 of the 1999 regular session of the Louisiana Legislature, the Department of Wildlife and Fisheries/Wildlife and Fisheries Commission hereby issues its Family Impact Statement in connection with the preceding Notice of Intent: This Notice of Intent will have no impact on the six criteria set out at R.S. 49:972(B).

Mr. Ronald Graham
Chairman

APPENDIX V

([return to water quality](#))

EPA ASSESSMENT DATA FOR D'ARBONNE WATERSHED - 2002

Table Legend:	Water Status is Good	Water Status is Threatened	Water Status is Impaired	Water Status has not been Assessed		
<u>Water Name</u>	<u>Assessment Unit ID</u>	<u>Location</u>	<u>Water Type</u>	<u>Water Size</u>	<u>Unit</u>	<u>Water Status</u>
<u>Bayou D'Arbonne - From Bayou D'Arbonne Lake to Ouachita Riv.</u>	LA080605_00	Bayou D'Arbonne-From Bayou D'Arbonne Lake to Ouachita River (Scenic)	RIVER	31	MILES	IMPAIRED
<u>Bayou D'Arbonne - Headwaters to Lake Claiborne</u>	LA080601_00	Bayou D'Arbonne-Headwaters to Lake Claiborne	RIVER	20	MILES	IMPAIRED
<u>Bayou D'Arbonne - Lake Claiborne to Bayou D'Arbonne Lake</u>	LA080603_00	Bayou D'Arbonne-From Lake Claiborne to Bayou D'Arbonne Lake	RIVER	35	MILES	GOOD
<u>Bayou D'Arbonne Lake</u>	LA080604_00	Bayou D'Arbonne Lake	LAKE	15251	ACRES	GOOD
<u>Corney Bayou - From Arkansas State Line to Corney Lake</u>	LA080607_00	Corney Bayou-From Arkansas State Line to Corney Lake (Scenic)	RIVER	28	MILES	GOOD
<u>Corney Bayou - From Corney Lake to Bayou D'Arbonne Lake</u>	LA080609_00	Corney Bayou-From Corney Lake to Bayou D'Arbonne Lake (Scenic)	RIVER	21	MILES	IMPAIRED
<u>Corney Lake</u>	LA080608_00	Corney Lake	LAKE	1920	ACRES	GOOD
<u>Cypress Creek - Headwaters to Bayou D'Arbonne</u>	LA080606_00	Cypress Creek-Headwaters to Bayou D'Arbonne (includes Colvin Creek)	RIVER	17	MILES	IMPAIRED
<u>Lake Claiborne</u>	LA080602_00	Lake Claiborne	LAKE	6400	ACRES	GOOD
<u>Middle Fork of Bayou D'Arbonne - Origin-Bayou D'Arbonne Lake</u>	LA080610_00	Middle Fork of Bayou D'Arbonne-From origin to Bayou D'Arbonne Lake (Scenic)	RIVER	43	MILES	IMPAIRED

APPENDIX VI

[\(return to hunting\)](#)

BAYOU D'ARBONNE WATERSHED DISTRICT REGULATIONS

Pursuant to its goal to maintain Lake D'Arbonne as a premier lake and to facilitate its use and enjoyment by all citizens, the Lake Commission has adopted various Ordinances regulating use of the Lake. These regulations are summarized below.

Boat Launching

No person is allowed to use any Boat Launching Facility, whether publicly or privately owned, for any purpose other than the launching of a boat.

All water craft shall be placed into the water and removed from the water at the ramp.

No fishing is permitted within 50 feet from the ramp at any Boat Launching Facility.

No overnight camping is permitted anywhere on any Boat Launching Facility.

No fires of any kind are allowed on any Boat Launching Facility.

No person is allowed on any Boat Launching Facility from sunset to sunrise except individuals loading and unloading boats and gaining access to vehicles lawfully parked on the Boat

Launching Facility parking area

No littering, dumping or depositing refuse is allowed in or around any Boat Launching Facility except in proper garbage and trash containers.

No horses are allowed on any Boat Launching Facility.

Only licensed motor vehicles are allowed on any Boat Launching Facility. Vehicles should not be driven at a greater rate of speed than shown on posted speed limit signs at the Boat Launching Facility. Parking of vehicles is restricted to hard road surfaces and designated parking areas.

No alcoholic beverages are to be consumed on any Boat Launch Facility. Loud, unnecessary noises or music or improper conduct are not permitted, also.

No firearms shall be discharged on any Boat Launching Facility.

No swimming is allowed from any Boat Launching Facility.

Willful injury or destruction, or attempt to injure or destroy, any kind of public structure is prohibited at any Boat Launching Facility.

A violation is considered a misdemeanor and carries a fine not to exceed \$500 or imprisonment in the parish jail for no more than 30 days, or both.

Watercraft Speeds

All watercraft must reduce to idle speed within fifty (50') feet of all state highway bridges over the Lake.

A violation is considered a misdemeanor and carries a fine not to exceed \$500.

Duck Blinds / Firearms

No duck blind or other structure is allowed to be constructed less than 1,000 feet from any dwelling located on or near the shoreline of the Lake.

No person is allowed to engage in hunting activities or discharge any firearm less than 1,000 feet from any dwelling located on or near the shoreline of the Lake.

A violation is considered a misdemeanor and carries a fine not to exceed \$500 or imprisonment in the parish jail for no more than 30 days, or both.

Metallic Objects

The placing of metallic objects in the Lake is strongly discouraged, other than a metallic object for a user's temporary use, such as a boat, motor or recreational equipment.

The use of any types of metallic rods, stakes, pipes, poles, tubing, rebar, or similar objects in the Lake is prohibited except in the following situations:

- a) In connection with signs, markers, or other objects placed with the permission of the State of Louisiana;
- b) In connection with docks, piers, boathouses or other structures permanently attached to the shore/bank of the Lake;
- c) In connection with floating docks or other structures clearly marked to be visible to persons using the Lake;
- d) In connection with duck blinds constructed on or prior to September 1, 2003, if the duck blind is actually used for waterfowl hunting each season and is clearly marked;
- e) In connection with floating duck blinds constructed after September 1, 2003, (no metal objects should be driven into the Lake bed), if the duck blind is actually used for waterfowl hunting each season and is clearly marked;
- f) In connection with the mounting of a light, birdhouse, slide, swing, or similar object in close proximity to a dwelling located on the shore or bank of the Lake.

The placing of any cable, wire, rope or other similar apparatus above the surface of the Lake that is used to support, hang, or attach markers, signs, yo-yos, mechanical trigger devices, trotlines, hooks, or any other device is prohibited.

A violation is considered a misdemeanor and carries a fine not to exceed \$500.

Piers / Boathouses

Each pier, dock, boathouse, barge or other structures extending into the Lake should not extend more than 100 feet or 25% of cove width, whichever is less, perpendicular from the 80.0 foot mean sea level contour line of the Lake, unless written approval is obtained from the Lake Commissioners Board.

This applies to all such existing piers and structures which are materially enlarged or altered after July 1, 2004, and applies to all new structures constructed after July 1, 2004.

Commercial piers or structures are exempt from this ordinance, although such commercial piers or structures may otherwise be regulated by the Board.

The following guidelines are recommended on the Lake:

- a) Each pier or dock extending into the Lake may contain a porch, deck, or similar structure, provided that the same shall not be used for living quarters, and may contain a boat house or boat slips.
- b) Posts and material touching water should be treated wood. Flooring and handrails should be treated wood (minimum 2" x 6").
- c) All pier wiring should be placed in conduit.
- d) All floating piers, docks, boathouses, barges and/or other structures must be securely attached or moored in an approved manner at all times and anchored properly in order to prevent them from becoming unmoored and floating away during periods of high water.

Highway Rights of Way

Parking on highway rights of way is prohibited by the Louisiana Department of Transportation and Development.

Flood Mitigation

The normal pool stage for Lake D'Arbonne is 80 feet. Lake water levels of 84 feet and higher is considered to be flood level stage and the Lake is closed to all boat traffic. The Bayou D'Arbonne Lake Watershed District has adopted procedures to request opening the spillway gates at 85 feet and having them remain open until the water level drops back to 83 feet.

Drawdown Schedule

The Bayou D'Arbonne Lake Watershed District has adopted a policy of a fall drawdown every four years beginning in 2004 involving opening the spillway gates the day after Labor Day and closing them on November 15th. This will enable homeowners to complete necessary repairs and allow for ramp maintenance, channel maintenance, and stump clearing.

APPENDIX VII

RELATED PUBLICATIONS

- Davis, James T. and Janice S. Hughes. 1964. Results of Creel Census on Four North Louisiana Lakes. Proc. Ann. Conf. Southeast. Assoc. Fish and Wild. Agencies 18:495-506.
- Hughes, Janice S. and Neil H. Douglas. 1965. Movement of Native and Stocked Fish in D'Arbonne Lake after Impoundment. Proc. Ann. Conf. Southeast. Assoc. Fish and Wildl. Agencies 19:349-363.
- Davis, James T. and Janice S. Hughes. 1965. Effects of Impoundment on the Benthic Population of Bayou D'Arbonne, Louisiana. Proc. Ann. Conf. Southeast. Assoc. Fish and Wild. Agencies 19:364-374.
- Grafton, Tommy D. 1965. A History of the Lake D'Arbonne Project. Unpublished. 57 pp.
- Walker, Bobby T. 1965. A Taxonomic Survey of the Fish Fauna of Bayou D'Arbonne Drainage System Prior to Impoundment. Proc. LA Acad. Sciences Vol. XXVIII, December, pp. 105-110.
- Wood, Michael G. 1981. A Taxonomic Survey of the Fishes of Bayou D'Arbonne after Impoundment. MS Thesis. NLU. 115 pp.
- FTN Associates Ltd., 2001, Tributaries to Bayou D'Arbonne Lake TMDL for Biochemical Oxygen-Demanding Substances, 30pp.